

REMARKS

Claims 1-6 and 9-10 are pending in this application. Claims 1-5, 9 and 10 were rejected and claim 6 was objected to. Applicants have amended claims 1 and 3 in order to more particularly and completely claim the present invention. No new matter has been introduced.

The amended claim 1 includes some of the limitation of the original claim 3, which has now been limited to the use of polyhydric alcohols as one of the reactants and aims at maintaining the integrity of the wellbore.

The amended claim 1 now refers to the use of compositions very different from the organo-silane based compositions described by Hewgill. Hewgill does not disclose or suggest the use of polyhydric alcohols.

As to the relevance of Meyer, applicant's point out various limitations in the claims that make the methods specific to hydrocarbon wells.

Firstly, the present invention is a method applied to a hydrocarbon well surrounded by clayey formations. The only occurrence of clay in Meyer is found in Example 3 (col. 7) . In this example, Meyer teaches: "For consolidation, holes of 2.5 m depth and 45 cm dia. were drilled 60 cm above the seam." The borehole described here is certainly not a hydrocarbon well as claimed in claim 1, even though an error in the translation from the German priority DE 2908746 increased the diameter of the borehole by a factor of ten from (originally) 45 mm to 45 cm. (I have attached the relevant page of the German published application DE 2908746; see line 9).

Secondly, while clearly the boreholes of Meyer are not hydrocarbon wells, the compositions disclosed by Meyer are not suitable for use in hydrocarbon wells: In column 3, lines 39-47; it is stated that boreholes "should be closed immediately after the mixture has been forced in" and that "gelling and subsequent hardening of the mixture begins only after 30 to 60 seconds". In a typical hydrocarbon well the well fluid is circulated to a depth of several thousand feet and back to the surface. A mixture that solidifies in 60 seconds or less would certainly lead to a stuck pipe and block the well.

Further evidence can be found when calculating the amount of water in the mixture of Meyer. Following the limits given in column 3, lines 19-26, then the highest percentage by weight of water is about 60 % (taking the extremes of a 25% concentrated water glass solution in a 15:85 mixture with polyisocyanate). Within the

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preferred limits of Mayer (e.g. a 50% solution in a 50:50 mixture) the water content drops to 25 %. These mixtures can hardly be characterized as aqueous, but are certainly not suitable as wellbore service fluids for the oil industry. For comparison, typical water based drilling fluids have a water content of at least 80%, if not 90% and more.

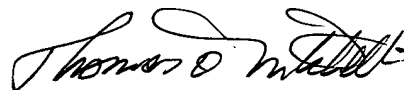
Hence, the disclosure of Meyer is clearly limited to applications not compatible with the oilfield industry. In addition to the reasons explained above, it is now emphasized in the amended claim 1 that the integrity of the borehole is maintained. Clearly, this is not the case for the methods of Meyer, which leaves the boreholes completely blocked after the treatment.

In summary Meyer does not teach methods or compositions suitable for the oil industry. Specifically, Meyer does not disclose or suggest the use of polyhydric alcohols in a hydrocarbon well, the use of an aqueous fluid as it would be understood in the oilfield industry, and use of the method to maintain the integrity of the hydrocarbon well

In light of the above arguments and amendments to the claims, Applicants respectfully request that a timely Notice of Allowance be issued in this case.

It is believed a fee is due for this submission. The Commissioner is authorized to charge or credit any necessary fee to Deposit Account No. 19-0615(57.0265).

Respectfully submitted,



Thomas O. Mitchell
Reg. No. 47,800
Agent for Applicants

Date: Sept 2, 2003
Schlumberger Technology Corporation
110 Schlumberger Drive, MD-1
Sugar Land, Texas 77478
Ph: 281-285-4490
Fax: 281-285-8569